

IFW

DOCKET NO.: M0656.70097US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Alice Y. Ting  
Serial No: 10/634,740  
Confirmation No: Not Yet Assigned  
Filed: August 5, 2003  
For: GENETICALLY ENCODED FLUORESCENT  
REPORTERS OF KINASE, METHYLTRANSFERASE,  
AND ACETYL-TRANSFERASE ACTIVITIES  
Examiner: Not Yet Assigned  
Art Unit: Not Yet Assigned

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 21<sup>st</sup> day of May, 2004.

  
Melissa L.B. Lyons

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

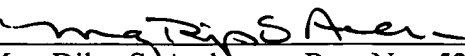
Transmitted herewith are the following documents:

- ☒ Information Disclosure Statement
- ☒ PTO Form 1449 with cited references
- ☒ Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 720-3500, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,  
*Alice Y. Ting, Applicant*

By:   
Mary Dilys S. Anderson, Reg. No.: 52,560  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617)720-3500

Docket No. M0656.70097US00  
Date: May 21, 2004  
xNDDx



DOCKET NO: M0656.70097US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Alice Y. Ting  
Serial No: 10/634,740  
Confirmation No: Not Yet Assigned  
Filed: August 5, 2003  
For: GENETICALLY ENCODED FLUORESCENT  
REPORTERS OF KINASE, METHYLTRANSFERASE,  
AND ACETYL-TRANSFERASE ACTIVITIES

Examiner: Not Yet Assigned  
Art Unit: Not Yet Assigned

---

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 21<sup>st</sup> day of May, 2004.

  
Melissa L.B. Lyons

---

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed

within three months of the filing date of a National Application other than a continued prosecution application under 37 C.F.R. §1.53(d).

No fee or certification is required.

PART II: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The above-identified U.S. application claims priority to application Serial No. 60/425,578. If the Examiner has not had the benefit of review of the file history of 60/425,578, then he/she is asked to contact the undersigned, who will provide a copy of same.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

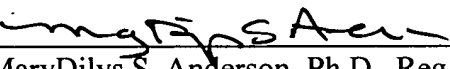
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

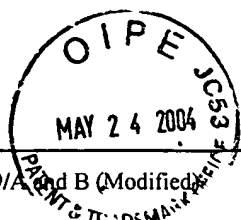
Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,  
Alice Y. Ting, *Applicant*

By:   
Mary Dilys S. Anderson, Ph.D., Reg. No. 52,560  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 720-3500

Docket No. M0656.70097US00  
Date: May 21, 2004  
**XNDDX**



<b>FORM PTO-1449/A and B (Modified)</b> <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 10/634,740		ATTY. DOCKET NO.: M0656.70097US00	
				FILING DATE: August 5, 2003		CONFIRMATION NO.: Not Yet Assigned	
				APPLICANT: Alice Y. Ting			
				GROUP ART UNIT: Not Yet Assigned		EXAMINER: Not Yet Assigned	
Sheet	1	of	2				

#### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,503,977		Nils Johnsson et al.	04-02-1996
	A2	5,585,245		Nils Johnsson et al.	10-17-1996
	A3	5,625,048	A1	Roger Y. Tsien et al.	04-29-1997
	A4	6,124,128	A1	Roger Y. Tsien et al.	09-26-2000
	A5	20020090643	A1	Roger K. Craig et al.	07-11-2002
	A6	20020164674	A1	Roger Y. Tsien et al.	11-07-2002
	A7	20020165364	A1	Roger Y. Tsien et al.	11-07-2002

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/Country	Number	Kind Code			
	B1	WO	96/23810			08-08-1996	
	B2	WO	01/33199	A2		05-10-2001	
	B3	WO	02/095058	A2		11-28-2002	

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
	C1	AGALIOTI, T. <i>et al.</i> , Deciphering the transcriptional histone acetylation code for a human gene. <i>Cell</i> 111: 381-392, 2002..		
	C2	AIT-SI-ALI, S. <i>et al.</i> , CBP/p300 histone acetyl-transferase activity is important for the G1/S transition. <i>Oncogene</i> 19: 2430-2437, 2000.		
	C3	BELYAEV, N.D. <i>et al.</i> , Histone H4 acetylation and replication timing in Chinese hamster chromosomes. <i>Experimental Cell Research</i> 225: 277-285, 1996.		
	C4	CAMPBELL, R.E. <i>et al.</i> , A monomeric red fluorescent protein. <i>Proc. Natl. Acad. Sci. USA</i> 99(12): 7877-7882, 2002.		
	C5	CHEN, H. <i>et al.</i> , Regulation of hormone-induced histone hyperacetylation and gene activation via acetylation of an acetylase. <i>Cell</i> 98: 675-686, 1999.		
	C6	CHEUNG, P. <i>et al.</i> , Synergistic coupling of histone H3 phosphorylation and acetylation in response to epidermal growth factor stimulation. <i>Molecular Cell</i> 5: 905-915, 2000.		
	C7	DHALLUIN, C. <i>et al.</i> , Structure and ligand of a histone acetyltransferase bromodomain. <i>Nature</i> 399: 491-496, 1999.		
	C8	FISCHLE, W. <i>et al.</i> , Histone and chromatin cross-talk. <i>Current Opinion in Cell Biology</i> 15: 172-183, 2003.		
	C9	FU, H. <i>et al.</i> , 14-3-3 proteins: structure, function and regulation. <i>Annual Review Pharmacology and Toxicology</i> 40: 617-647, 2000.		



	C10	GOTO, H. <i>et al.</i> , Identification of a novel phosphorylation site on histone H3 coupled with mitotic chromosome condensation. <i>Journal of Biological Chemistry</i> 274: 25543-25549, 1999.		
	C11	JACOBSON, R.H. <i>et al.</i> , Structure and function of a human TAF <sub>II</sub> 250 double bromodomain module. <i>Science</i> 288: 1422-1425, 2000.		
	C12	KIMURA, H. <i>et al.</i> , Kinetics of core histones in living human cells: little exchange of H3 and H4 and some rapid exchange of H2B. <i>The Journal of Cell Biology</i> 153(7): 1341-1353, 2001.		
	C13	LACHNER, M. <i>et al.</i> , The many faces of histone lysine methylation. <i>Current Opinion in Cell Biology</i> 14: 286-298, 2002.		
	C14	MARMORSTEIN, R., Protein modules that manipulate histone tails for chromatin regulation. <i>Nat. Rev. Mol. Cell Biol.</i> , 2: 422-432, 2001.		
	C15	NEW, L. <i>et al.</i> , Cloning and characterization of RLPK, a novel RSK-related protein kinase. <i>Journal of Biological Chemistry</i> 274 (2): 1026-1032, 1999.		
	C16	NIELSEN, P.R. <i>et al.</i> , Structure of the HP1 chromodomain bound to histone H3 methylated at lysine 9. <i>Nature</i> 416: 103-107, 2002.		
	C17	PERISSI, V. <i>et al.</i> , Factor-specific modulation of CREB-binding protein acetyltransferase activity. <i>Proc. Natl. Acad. Sci. USA</i> 96: 3652-3657, 1999.		
	C18	REA, S. <i>et al.</i> , Regulation of chromatin structure by site-specific histone H3 methyltransferases. <i>Nature</i> 406: 593-599, 2000.		
	C19	SHANKARANARAYANAN, P. <i>et al.</i> , Acetylation by histone acetyltransferase CREB-binding protein/p300 of STAT6 is required for transcriptional activation of the 15-lipoxygenase-1 gene. <i>The Journal of Biological Chemistry</i> 276(46): 42753-42760, 2001.		
	C20	TACHIBANA, M. <i>et al.</i> , G9a histone methyltransferase plays a dominant role in euchromatic histone H3 lysine 9 methylation and is essential for early embryogenesis. <i>Genes and Development</i> 16: 1779-1791, 2002.		
	C21	TADDEI, A. <i>et al.</i> , Duplication and maintenance of heterochromatin domains. <i>The Journal of Cell Biology</i> 147: 1153-1166, 1999.		
	C22	TING, A.Y. <i>et al.</i> , A Fluorescent probe of tyrosine phosphorylation in vivo, Grant Number 1F32GM063443-01, University of California San Diego, Grant Year 2001, NIH CRISP database at <a href="http://crisp.cit.nih.gov/">http://crisp.cit.nih.gov/</a> .		
	C23	TING, A.Y. <i>et al.</i> , Genetically encoded fluorescent reporters of protein tyrosine kinase activities in living cells. <i>PNAS</i> 98(26): 15003-15008, 2001.		
	C24	YAFFE, M.B. <i>et al.</i> , A motif-based profile scanning approach for genome-wide prediction of signaling pathways. <i>Nature Biotechnology</i> 19: 348-353, 2001.		
	C25	YAFFE, M.B. <i>et al.</i> , The structural basis for 14-3-3: phosphopeptide binding specificity. <i>Cell</i> 91: 961-971, 1997.		
	C26	ZACHARIAS, D.A. <i>et al.</i> , Partitioning of lipid-modified monomeric GFPs into membrane microdomains of live cells. <i>Science</i> , 296: 913-916, 2002.		
	C27	ZHANG, J. <i>et al.</i> , Creating new fluorescent probes for cell biology. <i>Nat. Rev. Mol. Cell. Biol.</i> , 3: 906-18, 2002.		
	C28	ZHANG, Y. <i>et al.</i> , Transcription regulation by histone methylation: interplay between different covalent modifications of the core histone tails. <i>Genes and Development</i> , 15: 2343-2360, 2001.		
	C29	ZHONG, S. <i>et al.</i> , Ultraviolet B-induced phosphorylation of histone H3 at serine 28 is mediated by MSK1. <i>J. Biol. Chem.</i> 276(35), 33213-33219, 2001.		

EXAMINER	DATE CONSIDERED
----------	-----------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_, filed \_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]